

REMARKS

As a preliminary matter, with respect to the drawings, Applicants have included herewith a marked-up copy of FIG. 9, with the proposed changes in red. As can be seen from the proposed changes, Applicants have attempted to respond to the points noted by the Examiner in the Office Action mailed March 12, 2003 (Paper No. 11). Approval of the proposed drawing changes is respectfully requested.

As a second preliminary matter, Applicants note that the Examiner has not listed claim 2 of the present invention among the pending claims listed on the Office Action Summary. Claim 2 of the present invention has not been withdrawn nor cancelled, and the Examiner has even included a rejection of claim 2 in the outstanding Office Action. Applicants respectfully request correction of this apparent oversight with respect to claim 2.

Claims 5-6 and 17-18 stand rejected under 35 U.S.C. 102(a) as being anticipated by Kohama et al. (U.S. 5, 946,070). Applicants respectfully traverse this rejection as follows.

With respect to claims 5 and 6 of the present invention, Applicants respectfully traverse the rejection because the cited reference does not disclose (or suggest) a frame-shape structure formed in an area between a main seal and a display area, as in independent claim 5 of the present invention, as last amended. Kohama discloses a liquid crystal display device where liquid crystal is sandwiched between two substrates 10, 20, which are sealed by seal member 30. (See Figs. 1-2). Also included between the two substrates 10, 20 is a side wall 45, which the Examiner asserts is a "frame-shape structure," and equivalent to the frame

shape structure of claims 5 and 6 of the present invention. Kohamas side wall 45, however, could not reasonably be considered to be a “frame shaped structure” under even the broadest of interpretations.

Kohama clearly shows in FIG. 1 that the side wall 45 is nothing more than a very short spacer between the substrates 10, 20 that extends in one single direction only, and also only across a very small fraction of the length of the substrates. This meager side wall 45 could not satisfy a definition of any “frame-shape structure.” Accordingly, for at least these reasons, the rejection of claims 5 and 6 (which depends from claim 5) based on Kohama is respectfully traversed.

With respect to claims 17 and 18 of the present invention, Applicants respectfully traverse this rejection because the cited reference does not disclose (or suggest) a plurality of structures formed inside a display area for controlling the spread of dropping liquid crystal, as in claim 17 of the present invention, as last amended. Kohama discloses that liquid crystal is placed at the opening of the seal member 30, and then charged into the gap between the substrates 10, 20 by vacuum pressure. (See col. 6, lines 7-20). This vacuum injection method is significantly different from the instilling method, where liquid crystal molecules are dropped directly onto a substrate surface. Kohama specifically teaches that liquid crystal is charged into the cell gap only through inner passages 43 in the display area, and by vacuum pressure. (See col. 6, lines 18-20).

Claim 17 of the present invention (and its dependent claim 18), on the other hand, specifically recites structures formed inside of a display area for controlling spreading

of dropping liquid crystal. Accordingly, because Kohama teaches not such structures to deal with dropping liquid crystal or instilling method, the rejection of claims 17 and 18 based on Kohama is respectfully traversed for at least these reasons.

Claim 19 stands rejected under 35 U.S.C. 102(a) as being anticipated by Fujioka et al. (U.S. 6,124,917). Applicants have amended claim 19 of the present invention to clarify that the structure, provided in a frame shape between the sealing material and the display area of the present invention, is convex, and Applicants therefore respectfully traverse. Fujioka fails to teach (or suggest) such a convex shape structure.

Fujioka specifically teaches that the outflow preventing portion structure 109, as identified by the Examiner, includes only concave portions 109a arranged in a tooth-like pattern. (See col. 11, lines 40-43). Fujioka neither shows nor describes any such structure which could be considered “convex.”

Claim 19 of the present invention, on the other hand, has been amended to clarify that the structure provided in a frame shape between the sealing material and the display area of the present invention has a convex shape. Such a shape is different than, and directly opposite to, the concave portions 109a specifically taught by Fujioka. Accordingly, for at least these reasons, the rejection of claim 19 based on Fujioka is respectfully traversed.

Claims 1-2 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Nagayama et al. (U.S. 6,384,882) in view of Shuichi (JP 11-015007). Applicants respectfully traverse this rejection as being improper. The Nagayama reference has a filing date (November 8, 2000), which is over five months later than that of the present Application,

which was filed on May 23, 2000. Accordingly, Nagayama is not prior art against the present Application, and cannot form any part of a rejection based on obviousness. The rejection should be withdrawn.

Claim 7-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kohama in view of Takuya (JP 11-119230) and Sakai et al. (U.S. 6,222,603). Applicants respectfully traverse this rejection for at least the reasons discussed above in traversing the rejection of independent claim 5. Claims 7 and 8 both depend either directly or indirectly from independent claim 5, and therefore include all of the features of the base claim, plus additional features. Accordingly, claims 7 and 8 should be allowable over the Kohama reference in particular, for at least the reasons discussed above traversing Kohama.

Claim 9 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kijima et al. (U.S. 6,259,500) in view of Shuichi. Applicants respectfully traverse this rejection because the cited reference neither discloses nor suggests a light-reflection layer formed in an area to be under the sealing materials on at least one of two substrates, as in claim 9 of the present invention, as amended.

Applicants first wish to point out to the Examiner that Kijima has not been cited by the Examiner on any Information Disclosure Statement or Form PTO-892. Applicants respectfully request that the Examiner do so, should the Examiner choose to maintain a rejection based on Kijima. Nevertheless, Kijima fails to show the recited features of the present invention. Fig. 8B of Kijima clearly shows that the light-reflection layer 19 is formed on top of the sealing material 36 and the substrates 11. In contrast, claim 9 of the

present invention has been amended to clarify that the light reflection layer of the present invention is formed in an area under the sealing material on at least one of the two substrates, as illustrated in FIGS. 21a and 21b of the present Application. Neither Kijima nor Shuichi show, describe, or suggest such a structural configuration. Accordingly, the rejection of claim 9 based on a combination of Kijima and Shuichi is respectfully traversed for at least these reasons.

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art ("the AAPA") in view of Hasegawa et al. (JP 09-090383). Applicants respectfully traverse this rejection because neither of the cited references, whether taken alone or in combination, discloses or suggests that colored particles are formed at lower portions of a shading film formed on a substrate, as in claim 4 of the present invention, as last amended.

Applicants submit that the Examiner has not demonstrated a *prima facie* case of obviousness against claim 4 of the present invention. Section 2143.03 of the MPEP requires that, to establish a *prima facie* case of obviousness, all features and elements of the claim in question must be taught or suggested by the prior art. In the present case, however, the Examiner has not even cited to anywhere in either of the cited prior art references where can be found a teaching or suggestion that a transfer having a color particles is formed at the lower portion of the shading film. Applicants further submit that no such teaching or suggestion could be found in either the AAPA or Hasegawa.

The colored particles of the present invention are shown and described in FIGS. 8a and 8b and page 45 of the present Application, and not in the description of the Admitted Prior Art. Furthermore, Hasegawa fails to teach or suggest anything related to transfers in general. Accordingly, for at least these reasons, the rejection of claim 4 based on a combination of the AAPA and Hasegawa is respectfully traversed.

Claim 20 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshikawa et al. (U.S. 4,640,583) in view of Sakai. Applicants respectfully traverse this rejection because neither of the cited references, whether taken alone or in combination, teaches or suggests a hollow frame-shape sealing material formed at an external periphery of a first sealing material, and for functioning as a suction in an atmosphere, as in claim 20 of the present invention, as last amended.

The Examiner acknowledges on page 7 of Paper No. 11 that Hoshikawa fails to teach or suggest a hollow frame-shape sealing material functioning as suction in an atmosphere. Only Sakai has been cited for teaching such a structure. Sakai, however, also fails to teach or suggest such a structure as in claim 20 of the present invention.

Sakai discloses a liquid crystal display having a seal pattern 6 and a dummy seal pattern 11 formed outside of the seal pattern 6, and enclosing the seal pattern 6 entirely within the border of the dummy seal pattern 11. In other words, the dummy seal pattern 11 cannot be considered hollow because the seal pattern 6 is located entirely within it.

Claim 20 of the present invention, on the other hand, specifically recites a hollow frame shape sealing material formed at an external periphery of the first sealing


material. FIGS. 90a – 90c of the present Application, for example, illustrate how frame-shaped ceiling materials can be formed external to the periphery of the first ceiling material, but still be hollow. Sakai neither teaches nor suggests such a structure. Accordingly, for at least these reasons, the rejection of claim 20 based on a combination of Hoshikawa and Sakai is respectfully traversed.

For all the foregoing reasons, Applicants submit that this Application, including claims 1-9 and 17-20 is in condition for allowance, which is respectfully requested.

The Examiner is invited to contact the undersigned Attorney if an interview would expedite prosecution.

Respectfully submitted,

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